

Science

Cryptic Symbols

Since earliest times, people have had artistic instincts, have satisfied them in crude, unpolished ways, resulting in hieroglyphics, drawings, rough sketches. Today these ancient relics are cloistered in museums; stared at by sight-seers, studied minutely by archeologists, ethnologists, eager to learn of the arts, customs, beliefs of these ancient peoples.

During past centuries, Indian tribes of the Southwest made countless crude sketches on rock surfaces. Archeologists have not yet decided why these drawings were made; believe they may have been drawn for religious or ceremonial purposes, to satisfy artistic cravings; perhaps for other reasons, still undiscovered.

To be found today in the mountains and canyons of California, Nevada, Utah, Arizona, Lower California are many evidences of the primitive artistry of these early American Indians; chiefly petroglyphs, pictographs.

Petroglyphs were made by pecking with a hammerstone on rock surfaces, smooth, preferably vertical; are simpler, cruder, less symmetrical than pictographs which represent more care; were painted in color with simple brushes on similar surfaces. The predominant colors then black and white, also yellow and orange, on rarer occasions blue and green.

Many thousands of these cryptic symbols were painted, inscribed on rock surfaces in centuries gone by; have since been photographed, sketched by archeologists, intent upon their interpretation. For many years has this study gone on. Many theories have been offered, several hypotheses promulgated.

Yet last month would-be archeologist Dr. Julian H. Steward did not believe that science would ever be able to interpret the exact meaning of these relics of American Indian tribes. He had just made a detailed study of the subject; had just completed a 270-page analysis of the various rock decorations in the Southwest, illustrated with 94 photographs and sketches of exemplary designs.

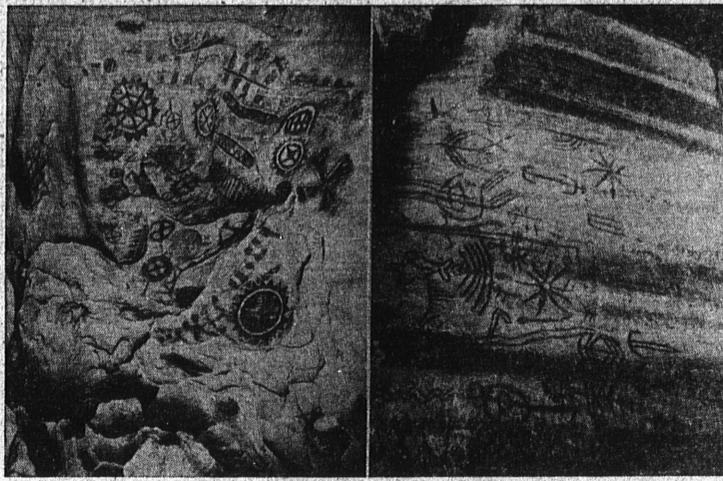
However, Dr. Steward, now a member of the University of Michigan faculty, did not think that these sketches were meaningless; refuted the suggestion that they were the idle whims of primitive redskin artists. He denied the intimation that they might have been made with the same carelessness with which a business man idly decorates his blotter while cogitating; declared tribal traditions were oftentimes apparent in certain localities.

One religious tradition, unusual, interesting, was cited by Dr. Steward: It was customary among the Luiseno and Capeno Indians, who lived in Santa Barbara County, near San Marcos Pass, for young girls to undergo an elaborate ceremony at the age of puberty.

For three days they were placed in a pit lined with heated rocks. On the morning of the fourth day they left the pit; their faces were painted black, remained so one month. During the second month, vertical white lines decorated the black facial foundation; during the third month, wavy, horizontal lines were used, called the "rattlesnake" design.

The three months over, the young girls underwent other rites; then painted diamond-shaped designs, representing the rattlesnake, on certain desert rocks, to signify their new tribal position. Certain of these crude pictographs, have been discovered, classified.

Strange are many of the other rough sketches, crude paintings discovered by one color with another hue, predominates in this region; although also to be found in northeastern California. In the Santa Barbara territory are to be seen dotted lines, cogged wheels, amoebas (clear-cut, hollow symbols), concentric bands of color (so alternated as to resemble a target), human figures of varying types, and many-legged insects.



PICTOGRAPH (painted) PETROGLYPH (scratched)
... dotted lines, cogged wheels, amoebas, many-legged insects.

In southwestern California, pictographs were found to predominate; almost invariably in red. Designs were linear; usually parallel zigzags, series of diamonds, etc. Throughout California are to be found ladders, spoked wheels, two-edged saws, ladders, herringbones, and rake designs.

Too far-fetched are the majority of these designs, according to Archeologist Steward, to be easily explained, to be related to the activities, customs, rites of the Indian tribes. However, Mr. Steward in his thesis asserted that they must have had meanings; enough resemblances are noted to refute the hypothesis that the designs were idle scrawls.

To make a petroglyph is a laborious task, demonstrated Dr. Steward. Rock surfaces are difficult to work upon when tools are weak, inadequate. Despite the seriousness of the efforts expended, results are usually none too effective. Therefore, the crudeness of the discovered designs must not be criticized too harshly, must not be held against the amateur artists.

Pictographs were more easily made, since painting with a brush required no manual labor. Rude colors were used; made from charcoal, ocher, lime, cinnebar, other crude ores.

Spyglass Site

More than 300 years ago, Italian Astronomer Galileo surveyed the heavens, found his vision inadequate, sought to bring the celestial bodies closer-at-hand. Into his bare workshop he went, labored long and arduously, at last created the world's first astronomical telescope. It magnified objects to three times their natural size; was acclaimed phenomenal, miraculous, portentous.

Astronomers since Galileo have perfected the original instrument, increased its capacity, realized its possibilities. Now about to be built under the auspices of the Mt. Wilson Observatory on the California Institute of Technology campus at Pasadena, is the world's largest telescope, 200 inches in size, to be the most powerful instrument of its kind.

Astronomer Dr. John A. Anderson of the Mt. Wilson Observatory now heads a committee delegated to choose the site where this massive spyglass is to be located upon its eventual completion. More than twenty prospective localities in Southern California and Arizona have been investigated; their atmospheric conditions studied, reported upon.

Already are reports forthcoming concerning certain of these sites, despite Astronomer Anderson's announcement that no definite selection will be made for a year. Last week was chosen that Pleasant View Ridge, 25 miles northeast of Pasadena, would be chosen; based their presumption on the fact that for four months an observer has been stationed there, making atmospheric, other observations. Pleasant View Ridge rises 8,000 feet above the Mojave Desert; is evidently decidedly in the running.

Dry Winter

When the ocean temperature during the summer is exceptionally warm, the ensuing winter is almost sure to be dry. Such was the contention last week of Oceanographer George F. McEwen of the Scripps Institution of Oceanography, at La Jolla. Oceanographer McEwen predicted

that the winter of 1929-30 would receive four inches less rainfall than the preceding wet season; based his estimate on last summer's ocean temperature, last winter's rainfall, this summer's temperature. Almost as dry as the winter of 1923-24 will the ensuing wet season be, Oceanographer McEwen last week declared; pointed out that the average ocean temperature in the summer of 1923 had been 69.5, during the past summer 69.1.

For several years has Oceanographer McEwen studied the relation between ocean temperature and rainfall; now in certain there is a definite connection between the two.

Education

Symbolic Ceremony

Simple, impressive, symbolic was the annual ceremony with which Pomona College faculty, students, alumni last week honored the founders of the institution; commemorated the industry, forethought, prescience, sagacity, which had made the College possible.

Dean Emeritus N. C. Norton, representing the founders of the institution, himself a loyal friend, delivered the address of the occasion; commented on the accomplishments of the past, praised the projects of the future.

The historic flame ceremony concluded the solemn convocation. Representatives of the faculty, alumni, the four student classes participated; passed from one to another the torch of learning.

During the meeting, Pomona College President K. Edmundson announced the loan of a collection of rare Chinese art treasures by Mrs. Gilbert Reid; named Pasadena's Henry V. Cobb as the winner of the annual Kappa Delta scholarship (selected by his class, chosen on basis of scholarship, leadership, culture, athletic ability.)

California Prodigies

California numbers among its youthful geni a nine-year-old youngster, already embarked on a college course; two ten-year-olds who are high school seniors; six ten-year-olds enrolled as high school juniors; one eight-year-old who is a high school freshman.

These phenomena were unearthed recently when the State Department of Education completed a survey of California's education-assimilating youth. The detailed investigation indicated that while the average boy or girl was enrolled in his regular class, a steadily number of youngsters were far ahead of the prescribed schedule, were sky-rocketing through their educational careers.

The survey discovered 48 four-year-olds who were already plowing through the second reader, despite the fact that young Californians need not enroll prior to their eighth birthday if they are so inclined.

One five-year-old and 20 six-year-olds were found studying third grade mysteries, while four seven-year-old pupils were assimilating fifth grade data.

Chief Walter E. Morgan of the Division of Research and Statis-

tics last week expressed no great astonishment at the survey's disclosures; declared that despite this surprising summary, the adult educational world need not fear a pinafored, knickered invasion.

Hanging Fire

Still hanging fire is the oft-discussed, never-decided question of a single union junior college for Orange County. Since the original inception of the idea, various sections of the County have first agreed, then objected, first, lent their approval, then their disapproval of the issue. (News Review, Aug. 19-25, et seq.)

Members of the educational committee of the Associated Chambers of Commerce of Orange County met last week ago, decided the sentiment on the issue was not yet sufficiently crystallized to warrant definite action.

They decided to call another meeting in the near future; to invite members of the various boards of education, school trustees, County Supervisors, others interested. At this meeting committees will report on the probable curriculum of the proposed educational institution; on the estimated cost of the project. A recommendation may also be forthcoming to provide funds for a county-wide survey of the need of the different communities for a union junior college.

Comparatively recent in educational developments is the junior college, organized not many years ago to aid the high school graduate desirous of continuing his education, but unwilling or unable to go far afield. He was enabled by the junior college to secure two more years of schooling close at home at minimum cost.

Last week the State Department of Education completed a survey of the junior colleges throughout the State, learned that during the past five years many administrative difficulties had been eliminated, the cost of operation had decreased greatly.

In 1923-24, the average cost of pupil daily attendance maintenance was \$342.46; in 1928-29, the same average cost was \$244.62; a decrease of practically \$100.

California's junior colleges are supported, the survey indicated, by district taxes, county tuition taxes, Federal aid sources. Seventy-eight per cent of expenditures go for instruction; 17 per cent to maintenance, fixed charges. The average cost of operation of each of California's 16 district junior colleges is approximately \$130,000 annually.

Yes and No

Should a business or professional woman, about to marry, give up her career and become domesticated, yielding her job to an unmarried woman? Or should she combine her new domesticity and her career?

This question has long been a subject of controversy; as yet no final decision has been forthcoming. However, San Francisco City Attorney O'Toole a fortnight ago decided that approximately 100 public school teachers now on probation are free to marry if they wish; may retain their teaching positions.

The San Francisco Board of Education had formerly ruled otherwise. The problem may eventually have to be decided by the courts.

Transportation

1914-1929

Back in 1914, when California was just beginning to assume international prominence as a winter playground, a cinema center, an agricultural area, along its highways and byways perambulated 123,516 motor vehicles; included in this estimate was every horseless conveyance, no matter what its vintage, its appearance, its use.

Last week Chief Frank G. Snook of the State Motor Vehicle Department announced that approximately 2,000,000 motor vehicles were now registered in California, representing a 1600 per cent registration gain in 15 years. Of these 2,000,000 machines, 859,523 are fee-paid registrations; the remainder being tax exempt.

Unparalleled in any other major industry is this phenomenal automotive gain, Snook disclosed; prophesied that the airplane might assert itself during the next decade-and-a-half.

Motor registration in southern counties aided materially in making up the tremendous state-wide increase. During the 15-year period, the ten southern districts made elephantine strides:

County	1914	1929
San Luis Obispo	651	11,161
Ventura	1,140	20,601
Imperial	1,515	20,709
Santa Barbara	1,796	22,613
Riverside	2,128	29,251
Kern	2,321	33,556
San Bernardino	3,198	44,404
Orange	3,661	46,145
San Diego	5,665	70,697
Los Angeles	43,999	755,775

During the World War, little increase in State motor registration was noted. However, the half-million mark was passed in 1920 with 541,934. The million goal was left behind in 1924 when 1,125,381 motor vehicles were registered. Since then, the increase has been slower, but still constant.

Coachella Outlet

Public spirited men of the Coachella Associated Chambers of Commerce last week, at Thermal, were host to many a county editor, county official. All were gathered together to discuss the water works of Coachella Valley. Main discussion: To promote a suitable means of egress from the Valley for citizens who, during the hot summer months, wish to reach a cooler district more quickly than they are able to at present. Proposed solution: To urge the county to re-route the road which is now being built, by prison labor, through the San Jacinto mountains (News Review, Sept. 2-8) over what is known as the Dead Indian Trail to Pinon Flats. This would enable residents be able to reach the cooling mountainous districts in approximately one hour of driving.

Conventions

Eastern Star

In Coronado last week were more than 2500 delegates, assembled for the 56th annual convention of the Grand Chapter of California, Order of the Eastern Star. They devoted themselves to the hearing of reports, the election and installation of officers, the presentation of jewels, informal receptions, programs of entertainment, a grand ball culminating the convention's activities.

Officers selected: Los Angeles' Mrs. Myra Moyle was chosen Worthy Grand Matron; Berkeley's Walter Bradley was named Worthy Grand Patron. Other Grand officers: Alvarado's Mrs. Willa Jane Bellwig, Associate Grand Matron; Ventura's Joseph Mayo Argabrite, Associate Grand Patron; Eagle Rock's Mrs. Elsie May McGiffen, Grand Conductress; San Francisco's Mrs. Grace Richardson, Associate Grand Patron; Los Angeles' Mrs. Mildred Blair, Grand Treasurer. Miss Susan Mills Wilate was re-elected Grand Secretary.

Distinguished guests present at the convention were: Mrs. Effie Easton, Worthy Grand, Mother of the General Grand Chapter of the World, and Past Worthy Grand Matron of California; Mrs. Georgiana V. Polhamus, Grand Representative of the Grand Chapter of Kentucky; Mrs. Joseph H. Pendleton welcomed the delegates to Coronado, extended the city's greetings.